

AMENDMENTS TO THE DRAWINGS

The attached "Replacement Sheet(s)" of drawings include(s) changes to Figure(s) 6. The attached "Replacement Sheet(s)," which include(s) Figure(s) 6, replace(s) the original sheet(s) including Figure(s) 6.

Attachment: Replacement Sheet(s)

REMARKS

Claims 1-37 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejection(s) in view of the amendments and remarks contained herein.

DRAWINGS

The drawings stand objected to for certain informalities. Applicant(s) have attached revised drawings for the Examiner's approval. In the "Replacement Sheet(s)" Applicants have added the reference characters 31c to 31g to Figure 6.

REJECTIONS UNDER 35 U.S.C. § 102 AND § 103

Claims 1, 5 and 35 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Okazaki et al. (U.S. Pat. No. 6,761,423 B2). Claims 2, 3, 9 and 36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ozaki et al. in view of Saruta (U.S. Pat. No. 5,980,015 A). Claims 4, 6, 8, 14, 15, 32 and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ozaki et al. in view of Saruta and further in view of Momose et al. (U.S. Pat. No. 6,460,959 B1). These rejections are respectfully traversed.

Ozaki et al. (USP 6,761,423; "Ozaki") discloses the pulse for vibrating the ink meniscus in the tip portion of the nozzle and the discharge pulse for discharging the ink droplet from the nozzle. However, Ozaki fails to disclose or suggest varying the direction in which the ink droplet is discharged from the nozzle.

Saruta (USP 5,980,015) and Momose et al. (USP 6,460,959) disclose varying the volume of the ink droplet discharged from the nozzle, but fail to disclose or suggest varying the direction in which the ink droplet is discharged from the nozzle.

Therefore, none of the references discloses or suggests varying the direction in which the ink droplet is discharged from the nozzle. Even when the references are combined in any manner, the present invention is anticipated nor rendered obvious. Hence, the present invention is patentable over all the references.

Accordingly, in order to more fully distinguish the applicants' invention, independent claims 1 and 2 have been amended to recite that the direction in which the ink droplet is discharged from the first nozzle is different from a direction in which the ink droplet is discharged from the second nozzle. It is submitted that these claims now fully distinguishes over the references and are in a condition for allowance. Moreover, the claims that depend upon these amended claims are also now in a condition for allowance for the same reason.

ALLOWABLE SUBJECT MATTER

The Examiner states that claims 11, 12, 17, 18, 21, 23, 24, 26, 27, 29 and 30 would be allowable if rewritten in independent form. Accordingly, Applicant(s) have amended claims 11, 12, 17 and 18 to include the limitations of the base claim and any intervening claims. Therefore, claims 11, 12, 17 and 18 and dependent claims 21, 23, 24, 26, 27, 29 and 30 should now be in condition for allowance.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated:

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